Integrated Public Alert and Warning System

IPAWS Rollout Update

Joint Special Interest Group

September 21, 2011

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Agenda

1. IPAWS Basics, Rollout Status

2. EMI Independent Study Course Development

3. Account application procedures

4. Technical matters for private and public sector IPAWS developers

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IPAWS Vision

"Timely Alert And Warning To American Citizens In The Preservation of Life And Property"

Integration of *public alert* communications systems:

▸ Facilitate single emergency alert message delivery to all available public dissemination channels

▸ Easier to use for alerting authorities

Alerting Authorities;
Local, State, Territorial,
Tribal, and Federal

IPAWS-OPEN
"Alert Aggregator"

Television
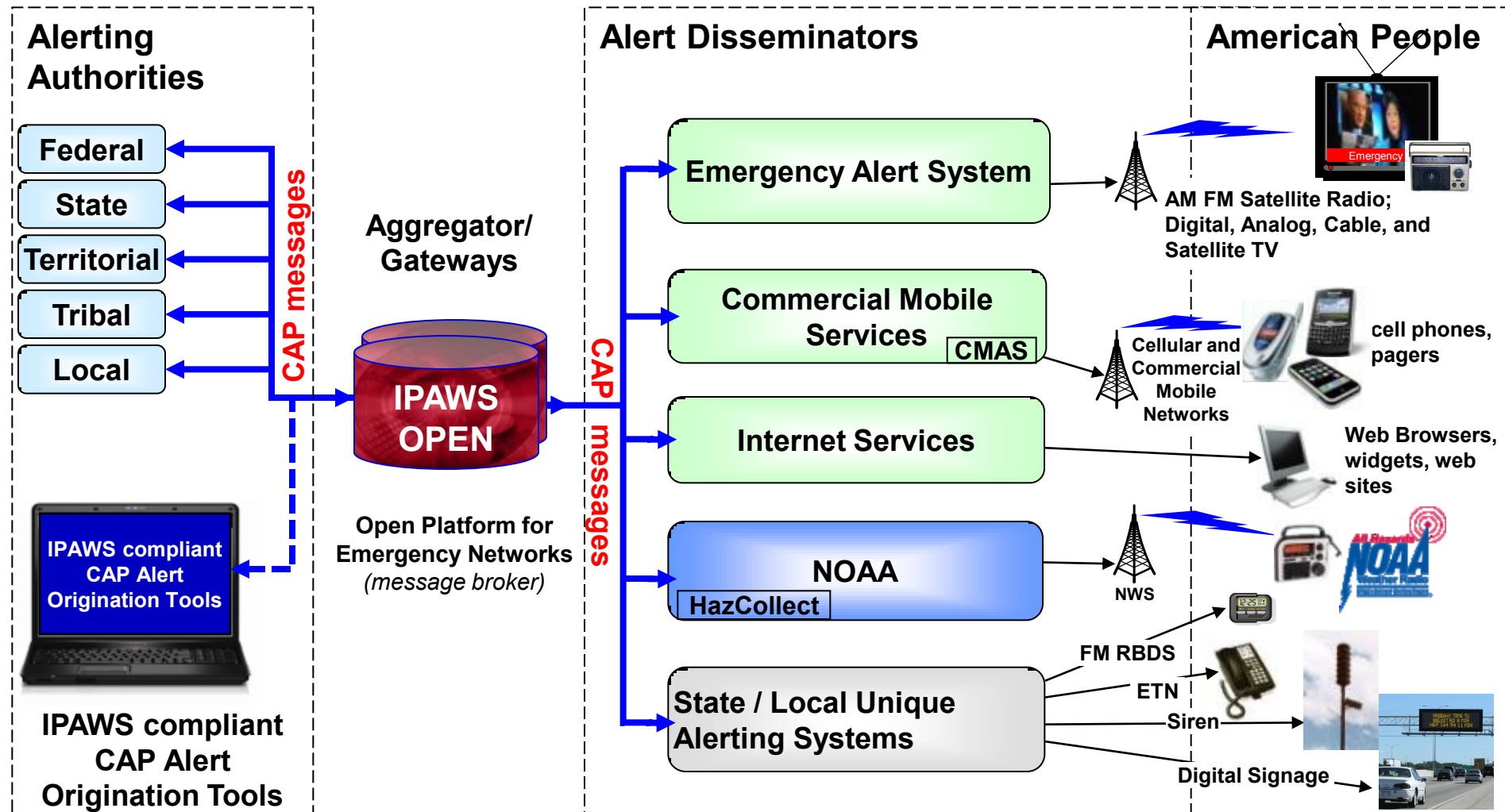
Radio

Cell Phone

Computer

Home Phone

Public Signage

▸ *Improves* and *Enhances* emergency alerting capability in two critical ways:

– increases reliability that affected citizens receive an alert via at least one path

– increases likelihood that citizens reacts to emergency alerts

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IPAWS Architecture

Standards Based Alert Message protocols, authenticated alert message senders, shared, trusted access & distribution networks, alerts delivered to more public interface devices

Alerting Authorities

- Federal
- State
- Territorial
- Tribal
- Local

CAP messages

IPAWS compliant CAP Alert Origination Tools

IPAWS compliant CAP Alert Origination Tools

Aggregator/ Gateways

IPAWS OPEN

Open Platform for Emergency Networks *(message broker)*

CAP messages

Alert Disseminators

- **Emergency Alert System**
- **Commercial Mobile Services** — CMAS
- **Internet Services**
- **NOAA** — HazCollect
- **State / Local Unique Alerting Systems**

American People

AM FM Satellite Radio; Digital, Analog, Cable, and Satellite TV

Cellular and Commercial Mobile Networks — cell phones, pagers

Web Browsers, widgets, web sites

NWS

FM RBDS
ETN
Siren
Digital Signage

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Emergency Alert System (EAS) Highlights

▸ IPAWS does not replace the systems you are currently using to route alerts to EAS

▸ FCC deadline for EAS participants (radio, TV, etc.) to install equipment capable of receiving CAP formatted alerts is now June 30, 2012

▸ Many participants have already installed updated equipment which will be programmed to poll an IPAWS Atom Feed

▸ Encoder/decoder equipment has been tested by FEMA and Supplier's Declarations of Conformity are available on the Responder Knowledge Base (RKB) Website http://www.rkb.us

▸ Further FCC rulemaking to incorporate CAP into Part 11 EAS rules is expected this year

▸ New rules will clarify requirements for EAS participants to relay alerts from state/territorial governors

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Commercial Mobile Alert System (CMAS) Highlights

▶ Cell broadcast to enabled handsets (not SMS text)
- No cost to the user.
- Opt out, not opt in.

▶ Will carry three kinds of alerts
- Presidential
- Imminent Threat (must meet urgency, severity, certainty requirements)
- AMBER

▶ 90 Character message is automatically populated based on CAP values selected by the originator

▶ IPAWS is the only system providing access to CMAS

▶ Participating cellular service providers are required to begin deploying CMAS during April 2012

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NOAA National Weather Service Highlights

▸ IPAWS-OPEN routes Non Weather Emergency Messages (NWEMs) to NWS HazCollect system

▸ Distributed via NOAA Weather Radio, other NWS dissemination systems, EAS

▸ IPAWS is the only *automated* system providing access to HazCollect

▸ Alerting authority through HazCollect is managed by NWS

Other Dissemination Systems Highlights

▸ Several developers are working on applications to retrieve and disseminate IPAWS alerts via the Web

▸ IPAWS also enables interoperable exchange of alerts and data between responding organizations

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IPAWS Rollout Status

▶ IPAWS-OPEN 2.0 (CAP 1.1) available now for interoperable message exchange

▶ Developer test environment available now

▶ September 30, 2011 – OPEN 1.0 and DMIS Tools decommissioned

▶ October 2011 – IPAWS-OPEN 3.0 (CAP 1.2) in production environment; EAS Atom feed, interoperable message exchange and HazCollect, CMAS gateway functions on line

▶ November 2011 – NWS expected to begin issuing weather alerts via IPAWS in addition to current methods

▶ April 2012 – cellular carriers CMAS capabilities begin to become available

▶ June 2012 – FCC deadline for EAS participants to be able to receive CAP-formatted EAS alerts per Part 11 rules

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Emergency Management Institute
Independent Study Course Development

▸ A Web-delivered Independent Study course is currently in development that will cover:

- Introduction to IPAWS

- Principles of Appropriate, Effective, and Accessible Alert and Warning Messages

- Composing Common Alerting Protocol Messages

▸ A variety of Subject Matter Experts have participated in the design and review of the course

▸ A beta version will be available in the mid-October 2011 timeframe

▸ We invite you to participate. If interested, please write to IPAWS@dhs.gov

▸ Depending on the results of the beta, the final version is expected to be published early 2012

▸ Local alerting authorities will be required to demonstrate successful completion of the course as a condition of IPAWS access (within 60 days of publication)

What do you need to do to use IPAWS?

▸ Your organization may apply for IPAWS access as soon as:

1. Application forms are published, AND

2. You have acquired IPAWS-compatible alert authoring software (i.e., your vendor is on the list of OPEN Developers and the planned functionality is indicated)

▸ Security Memorandum of Agreement (MOA) with FEMA (required by DHS) to establish an IPAWS Collaborative Operating Group (COG) account

▸ A COG may be established at the state/territorial, regional, or local level

▸ The COG administers their own member accounts through their software system

▸ If the COG is established for the purpose of interoperable exchange with other COGs *only*, no further application is required

▸ Once the MOA process is completed, a digital certificate is returned that your vendor will install to digitally sign all your messages

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Application for Public Alerting

▸ If the organization seeks public alerting authority through IPAWS, an additional application is required

▸ Application is on behalf of the COG organization

▸ Indicates the systems applied for (EAS, CMAS, HazCollect)

▸ Establishes the geographic extent of authority
  - Statewide?
  - Multi-county?
  - Single county?

▸ Establishes the type of EAS/SAME non-weather event codes used by the organization consistent with state and local EAS plans

▸ FEMA proposes that all alerting applications be routed and signed by a designated state authority (e.g., state emergency management agency Director or designee, Operations Chief, Communications Officer) before sending to FEMA

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Comments and Questions

▸ **IPAWS Website -** http://www.fema.gov/emergency/ipaws

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